

## Technical Data Sheet

Defoamer

Mining and Fertilizer Industry

## Rockdefoam 8040

### Description

**Rockdefoam 8040** is a very efficient defoamer which can be safely used in production process of phosphate based fertilizers such as CAN and NP, and also mineral processing of Phosphate Rocks.

### Specification

<b>Appearance</b>	Clear pale yellow liquid
<b>Nature</b>	Modified linear organic esters
<b>Solid Content, %</b>	41 ± 1
<b>pH (1:10 solution)</b>	7 - 8
<b>Ionity</b>	Anionic
<b>Solubility</b>	Dilution with 50% water does not exhibit any gel formation
<b>Density, g/cm<sup>3</sup></b>	1.06 ± 0.2
<b>Solidification</b>	-5°C
<b>Viscosity at 25°C</b>	S3 R50 1600 cp
<b>Pump ability</b>	Due to Non-Gelling/Non-Thickening behavior even at 0°C, does not pose any problem in pumping or choking of pipe lines
<b>Safety</b>	According to the best of our experience, it does not have any harmful effect on health
<b>Packing</b>	100 KG Drums or IBC Tanks
<b>Shelf life</b>	1 year

### Applications & Recommendations

When nitric acid is added to the phosphate rock, the digester has a temperature of around 60°C and the acid strength is 60%. At the evaporation stage the temperature is 180°C.

It is proved that **Rockdefoam 8040** is very powerful defoamer in the manufacture of complex fertilizers produced from the major rock phosphates, such as Kola Phosphate, USSR, Morocco Phosphate, Florida Phosphate, Granges Phosphate, Sweden, and Jordanian Phosphate. The created foam is caused by carbonates in the rock phosphates. Florida phosphate and Morocco phosphate cause great foam problems. The dosage of consumption of **Rockdefoam 8040** varies between 0.05 to 0.1% of the weight of rock, i.e. 0.5 to 1 kg of **Rockdefoam 8040** is sufficient to suppress created foam of 1 ton rock phosphate. However, this quantity may change depending on the conditions during operation. **Rockdefoam 8040** was found to be very effective in suppressing foam formed during manufacture of NPK fertilizers.

Generally foaming is caused due to the following factors:

- i. Decomposition of Urea with phosphoric acid
- ii. Presence of soot in the system.
- iii. Dissolution of rubber lining which gives rise to gasses
- iv. Plant conditions

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**NOTE:** To the best of our knowledge and technical experiments, the above data is true and accurate. Given the variety of consumption fields, it is recommended to evaluate the information before use.

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Foaming caused due to the abovementioned reasons could be easily suppressed by 0.005 to 0.05% of **Rockdefoam 8040** on the weight of scrubber liquor/fertilizer slurry.

Sometimes, higher dosages are required when foaming is very severe. Dosing of **Rockdefoam 8040** can be done from overhead tank or with the help of a plunger type of pump.

**ADVANTAGES**

**Rockdefoam 8040** has got the following outstanding characteristics:

- Decreasing the surface and interfacial tension.
- Cost effectivity
- Not affecting rubber tank and hose lining.
- Does not discolor or clog filter cloth.
- Improving filtration and crystallization.

**Storage Conditions**

Containers should be well sealed to prevent water evaporation and skin forming. The product must be stored between 5-25°C. Freezing and direct sun light must be avoided.

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